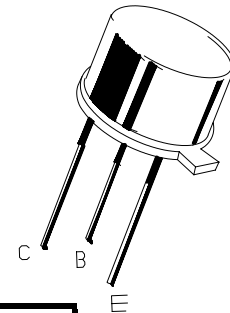


DEVICE SPECIFICATION

TYPE	: SL100
POLARITY	: N P N
APPLICATION	: General Purpose Medium Power Transistor
PACKAGE	: TO - 39



MAXIMUM RATINGS:

CHARACTERISTIC	SYMBOL	MIN	MAX	UNIT
Collector - Emitter Voltage	BV_{CEO}	50	-	V
Collector - Base Voltage	BV_{CBO}	60	-	V
Emitter - Base Voltage	BV_{EBO}	5.0	-	V
Total Power Dissipation @ $T_A = 25^\circ\text{C}$	P_D		800	mW
Collector Current	I_C		0.5	A
Operating & Storage Junction Temperature	T_j, T_{stg}		- 65 to 200	$^\circ\text{C}$

Electrical characteristics ($T_A = 25^\circ\text{C}$, unless otherwise specified)

CHARACTERISTIC	SYMBOL	MIN	MAX	UNIT
<u>OFF CHARACTERISTICS</u>				
Collector - Emitter Breakdown Voltage ($I_C = 10\text{ mA dc}, I_B = 0$)	BV_{CEO}	50	-	V
Collector - Base Breakdown Voltage ($I_C = 100\ \mu\text{A}, I_E = 0$)	BV_{CBO}	60	-	V
Emitter - Base Breakdown voltage ($I_E = 100\ \mu\text{A}, I_C = 0$)	BV_{EBO}	5	-	V
Collector Cut - off Current ($V_{CB} = 40\text{V dc}, I_E = 0$)	I_{CBO}	-	50	nA
Emitter - Cut off current ($V_{EB} = 4\text{V dc}, I_C = 0$)	I_{EBO}	-	25	nA



CHARACTERISTIC	SYMBOL	MIN	MAX	UNIT
<u>ON CHARACTERISTICS</u> *				
DC Current gain ($I_C = 10\text{mA dc}$, $V_{CE} = 10\text{V dc}$)	hFE (1)	25	-	
($I_C = 150\text{mA dc}$, $V_{CE} = 10\text{V dc}$)	hFE	40	300	
Collector - Emitter saturation Voltage ($I_C = 150\text{mA dc}$, $I_B = 15\text{mA dc}$)	VCE(sat)	-	0.6	V
Base - Emitter saturation voltage ($I_C = 150\text{mA dc}$, $I_B = 15\text{mA dc}$)	VBE(sat)	-	1.3	V

CHARACTERISTIC	SYMBOL	MIN	MAX	UNIT
<u>SMALL SIGNAL CHARACTERISTICS</u>				
Output Capacitance ($V_{CB} = 10\text{V}$, $I_E = 0$, $f = 140\text{KHz}$)	C_{obo}	-	20	pf

hFE Classification	SL 100B
hFE (1)	100 - 300

* Pulse Test : Pulse width $\leq 300 \mu\text{s}$, Duty Cycle $\leq 2.0\%$